

INTEGRATED CIRCUIT DEVICES INCLUDING LOW DIELECTRIC SIDE
WALL SPACERS AND METHODS OF FORMING SAME

ABSTRACT

An integrated circuit device can include a conductive contact in a hole in an interlevel dielectric layer with a first spacer, having a first dielectric constant, on a side wall of the conductive contact. A second spacer having a second dielectric constant, that is less than the first dielectric constant, is located between the first
5 spacer and the side wall of the conductive contact. Accordingly, the higher dielectric (first) spacer can be separated from a junction of a contact pad and a conductive contact, thereby reducing the likelihood that remnant higher dielectric material is, left on the contact pad, which could otherwise increase parasitic capacitance of the integrated circuit device. Related methods are also disclosed.